



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2017-0016; Directorate Identifier 2016-NE-31-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; General Electric Company Turbofan Engines**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for certain General Electric Company (GE) GEnx-1B64, -1B64/P1, -1B64/P2, -1B67, -1B67/P1, -1B67/P2, -1B70, -1B70/P1, -1B70/P2, -1B70/75/P1, -1B70/75/P2, -1B70C/P1, -1B70C/P2, -1B74/75/P1, -1B74/75/P2, -1B76A/P2 turbofan engines. This proposed AD was prompted by a fracture of the fuel manifold which led to an in-flight shutdown of the engine. This proposed AD would require replacement of the outer left side signal fuel manifold with a part eligible for installation. We are proposing this AD to correct the unsafe condition on these products.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact General Electric Company, GE-Aviation, Room 285, 1 Neumann Way, Cincinnati, OH 45215, phone: 513-552-3272; fax: 513-552-3329; email: [geae.aoc@ge.com](mailto:geae.aoc@ge.com). You may view this service information at the FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0016; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Christopher McGuire, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7120; fax: 781-238-7199; email: [chris.mcguire@faa.gov](mailto:chris.mcguire@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2017-0016; Directorate Identifier 2016-NE-31-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory,

economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

### **Discussion**

We received a report of an in-flight shutdown of an engine that resulted from the fracture of the fuel manifold. Investigation determined that the cause of the fracture was a defective weld joining the fuel line to the manifold. This condition, if not corrected, could result in fracture of the fuel manifold, engine fire, and damage to the airplane.

### **Related Service Information**

We reviewed GE GEnx-1B Service Bulletin (SB) 73-0051 R00, dated November 4, 2016; GE GEnx-1B SB 73-0052 R00, dated October 28, 2016; and GE GEnx-1B SB 73-0053 R00, dated November 15, 2016. These SBs describe, respectively, procedures for the inspection, repair, and replacement of the outer left side signal fuel manifold, part number 2403M46G01, and CAGE code 05813.

### **FAA's Determination**

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

### **Proposed AD Requirements**

This proposed AD would require replacement of the outer left side signal fuel manifold with a part eligible for installation.

### **Differences Between this Proposed AD and the Service Information**

GE GENx-1B SB 73-0053 R00, dated November 15, 2016, requires replacement of the affected fuel manifold within 60 days after the issuance of the SB. This proposed AD, based on our risk assessment of the potential for additional fractures of the fuel manifold, proposes that this replacement be done within 12 months.

### **Costs of Compliance**

We estimate that this proposed AD affects 109 engines installed on airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

#### **Estimated Costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Replacement of fuel manifold	2 work-hours x \$85 per hour = \$170	\$16,000	\$16,170	\$1,762,530

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**General Electric Company:** Docket No. FAA-2017-0016; Directorate Identifier 2016-NE-31-AD.

#### **(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to all GENx-1B64, -1B64/P1, -1B64/P2, -1B67, -1B67/P1, -1B67/P2, -1B70, -1B70/75/P1, -1B70/75/P2, -1B70/P1, -1B70/P2, -1B70C/P1, -1B70C/P2, -1B74/75/P1, -1B74/75/P2, -1B76A/P2 engines with outer left side signal fuel manifold, part number (P/N) 2403M46G01, and CAGE code 05813, installed.

#### **(d) Subject**

Joint Aircraft System Component (JASC) Code 7313, Fuel Injector Nozzle.

#### **(e) Unsafe Condition**

This AD was prompted by fracture of the fuel manifold which led to an in-flight shutdown of the engine. We are issuing this AD to prevent fracture of the fuel manifold, engine fire, and damage to the airplane.

#### **(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

(1) Inspect the outer left side signal fuel manifold, P/N 2403M46G01 and CAGE code 05813, to determine if the part has additional marking “XB,” “INS,” or “KB”

adjacent to part number. If the part is marked with “XB,” “INS,” or “KB,” then no further action is required.

(2) For parts without additional marking “XB,” “INS,” or “KB” adjacent to the part number, within 12 months after the effective date of this AD, replace the outer left side signal fuel manifold with a part eligible for installation.

**(g) Installation Prohibition**

After the effective date of this AD, do not install an outer left side signal fuel manifold, P/N 2403M46G01, and CAGE code 05813, onto an engine, unless additional marking “XB,” “INS,” or “KB” is adjacent to the part number.

**(h) Alternative Methods of Compliance (AMOCs)**

The Manager, Engine Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request. You may email your request to: [ANE-AD-AMOC@faa.gov](mailto:ANE-AD-AMOC@faa.gov).

**(i) Related Information**

(1) For more information about this AD, contact Christopher McGuire, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7120; fax: 781-238-7199; email: [chris.mcguire@faa.gov](mailto:chris.mcguire@faa.gov).

(2) GE GENx-1B Service Bulletin (SB) 73-0051 R00, dated November 4, 2016; GE GENx-1B SB 73-0052 R00, dated October 28, 2016; and GE GENx-1B SB 73-0053 R00, dated November 15, 2016, can be obtained from GE using the contact information in paragraph (i)(3) of this AD. These SBs, respectively, describe procedures for inspection, repair, and replacement of the outer left side signal fuel manifold.

(3) For service information identified in this proposed AD, contact General Electric Company, GE-Aviation, Room 285, 1 Neumann Way, Cincinnati, OH 45215, phone: 513-552-3272; fax: 513-552-3329; email: [geae.aoc@ge.com](mailto:geae.aoc@ge.com).

(4) You may view this service information at the FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on February 14, 2017.

Carlos A. Pestana,  
Acting Assistant Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.  
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